
F. The Kalamazoo River NRDA Property Appraisal Analysis

Prepared by Ritter Appraisals, Inc.

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Real Estate Appraisers

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September 21, 2001

Dr. William Breffle
Stratus Consulting
P.O. Box 4059
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Boulder, Colorado 80302



RE: Kalamazoo Project - Summary of the results of a preliminary market study of the impact of paper waste contaminants in the Kalamazoo River on property values along the Kalamazoo River basin.

Dear Dr. Breffle:

As per our discussion and agreement, I have completed a preliminary market study of the impact of contaminants in the Kalamazoo River on property values along the Kalamazoo River basin. This report is intended to comply with Standard 4 and Standard 5 (Real Property Appraisal Consulting) of the Uniform Standards for Professional Appraisal Practice (USPAP). Please note, a certification for this market study is attached to this letter. Following is a summary of the study.

INTENDED USER AND USE OF THE STUDY

The intended users and clients of this report are Dr. William Breffle, Stratus Consulting, United States Department of the Interior Fish and Wildlife Service, and the State of Michigan. Use of this report by any other party is prohibited.

The intended use of this report is for the sole purpose of determining if there is any anecdotal evidence that property values, particularly residential property values, along the Kalamazoo River have been adversely affected by the known paper waste contamination contained therein. Any other use of this report is prohibited.

PURPOSE OF THE STUDY

The purpose of the market study is to determine if sufficient anecdotal evidence exists to warrant a future, more intensive market study of the impact of paper waste contamination in the Kalamazoo River on property values, particularly residential property values, along the Kalamazoo River.

MARKET VALUE DEFINITION

"Value" as referred to in this report is synonymous with "Market Value." Market value is defined as follows:

Market value is the amount in cash, or on terms reasonably equivalent to cash, for which in all probability the property would have sold on the effective date of the appraisal [market study], after a reasonable exposure time on the open competitive market, from a willing and reasonably knowledgeable seller to a willing and reasonably knowledgeable buyer, with neither acting under any compulsion to buy or sell, giving due consideration to all available economic uses of the property at the time of the appraisal [market study]. (Uniform Appraisal Standards for Federal Land Acquisitions, 2000, Page 17)

SUBJECT OF THE STUDY

The property type that is the focus of this market study is real property adjacent to the Kalamazoo River, particularly residential real property, in the Kalamazoo River basin from the city of Kalamazoo to its confluence at Lake Michigan (an approximate distance of 80 miles).

EFFECTIVE DATE OF THE STUDY

The effective date of this market study is September 21, 2001, which is also the date of this report. Fieldwork for the study was conducted on September 18, 2001 through September 21, 2001.

SCOPE OF WORK

As requested by the client, this report is a preliminary market study and limited in scope. The opinions described in this report are not intended to be conclusive and the reader is warned that the reliability of this report may be impacted by its limited nature.

Preliminary data collection for the study involved gathering and reviewing demographic data for the region and information specifically regarding the contamination in the Kalamazoo River. Sources of demographic data include but are not limited to Census Data, Kalamazoo County, Allegan County, city of Kalamazoo, Greater Kalamazoo Association of Realtors, etc. Sources for information regarding contamination and a history of the contamination include but are not limited to Stratus Consulting, United States Environmental Protection Agency (EPA), Michigan Department of Environmental Quality (MDEQ), Kalamazoo Gazette, Kalamazoo River Watershed Public Advisory Council, etc.

The next step in the study was to conduct an on-site inspection of the area and the subject of the study, the Kalamazoo River. Due to the large area of the subject, inspection of the river was completed by a charter flight of the river beginning at Marshall and flying west/northwesterly to Lake Michigan. Other areas inspected during the flight were Gull Lake, the Lake Michigan shoreline from Holland to St. Joseph, the St. Joseph River basin from St. Joseph to Three Rivers, and Portage Creek from Portage to its confluence at the Kalamazoo River. Additional inspections of the Kalamazoo River basin were made from the ground where public roads intersect the river. Ground inspections were made in Kalamazoo, Plainwell, Otsego, Allegan, and Lake Allegan. As part of the property inspection, the consultant also considered development trends and land uses along the Kalamazoo River and other areas inspected.

Data research was qualitative in nature and primarily focused on interviews with persons familiar with the local market. Sources of data include but are not limited to area realtors, real estate appraisers, county equalization staff, city and county planners, officials with MDEQ, homeowners association officers, etc. Approximately 20 individuals having one of the above occupations were interviewed.

A limited amount of quantitative data was gathered from the local Multiple Listing Service (MLS). Quantitative data focused on residential lot sales around Lake Allegan and other similar, comparable lakes in Kalamazoo County and Allegan County because lake lot sales data had the greatest availability and the least amount of variables that impact value.

RESULT OF THE STUDY

Inspection of the Kalamazoo River by flight from Marshall to its confluence at Lake Michigan revealed typical land use patterns and development trends as would be expected along a stream or river. The land uses upstream from the city of Kalamazoo are similar to the land uses downstream from the city of Kalamazoo. Urban core areas typically contain commercial and industrial land uses. The outlying urban areas contain some residential development and the land between urban areas is typically a mixture of agricultural land and recreational land (wildlife refuges) with scattered farmsteads and rural homesites appearing adjacent to the river.

Development patterns along the St. Joseph River were found to be similar. However, the consultant did note a significantly greater amount of residential development along the St. Joseph River compared to the Kalamazoo River. The urban areas along the St. Joseph River contain a significantly larger amount of residential development. This is believed to be due to two factors.

First, the St. Joseph River is significantly larger than the Kalamazoo River. The areas of the St. Joseph River that contain more intensive residential development are large enough to accommodate recreational boating and water sports such as water skiing. The majority of the Kalamazoo River is a narrow shallow channel and limited to canoeing only. Those areas of the St. Joseph River with a narrow shallow channel contain limited residential development. In addition, those areas of the Kalamazoo River capable of supporting recreational boating, such as Lake Allegan and areas near Saugatuck, contain comparable residential development.

Second, the St. Joseph River is within closer proximity to Chicago. Many of the buyers for property along the St. Joseph River are from Chicago searching for a weekend cabin or second home. As the St. Joseph River is closer to Chicago, a major metropolitan area, it would be expected to have superior demand and more intensive development.

Inspection of the subject from ground and air, for the most part, revealed a scenic setting and the consultant noted no visible evidence of contamination. Vegetation is green along the river and the water is clear. As view is an important component of any residential property, the views along the river are aesthetically pleasing and rated good.

Most individuals interviewed about the river were skeptical that a measurable negative impact on property values along the Kalamazoo River could be found.

In fact, many individuals had strong opinions that there was not a negative impact on property values along the river. Common reasons why they would not expect a negative effect on property values as a result of the contamination include the following:

1. Demand for waterfront property has been very strong in recent years. Any property that contains some type of water frontage typically sells at a premium.
2. There is a limited amount of land available for improvements along the river. Much of the unimproved land adjacent to the river is either in the floodplain of the river or government owned as a wildlife refuge. Therefore, upland adjacent to the river that is privately owned is of a very limited supply.
3. The Kalamazoo River is no longer visibly contaminated. It offers a scenic view and as the pollution cannot be visibly seen at present, there is less of a perceived risk. Prior to the 1970s, the river was visibly polluted. However, currently there are few to no visible signs of pollution. Therefore, as the appearance of the river has greatly improved, people perceive the water quality as having greatly improved.
4. Many buyers of waterfront property are from the Chicago area and may be unaware of any contamination hazard.
5. Lake Allegan is a 1,500+ acre lake and will accommodate recreational boating. There is a limited supply of large lakes in the area.

Realtors interviewed indicated that they had lost sales along the river after potential buyers found out about the contamination or fish advisory, but indicated that the marketing times for riverfront property were typical and riverfront property sells at a premium. The consultant collected MLS sale data on 44 improved residential sales having frontage on the Kalamazoo River. The sales contain an average marketing time of 82 days with the overall range being 1 day to 201 days. This is a typical expected marketing time for property in the subject area. Nearly all of the sales were advertised emphasizing the riverfront amenity.

One realtor indicated lots fronting Lake Allegan with access to the lake typically sell in the \$40,000 to \$70,000 price range and second tier lots sell in the \$20,000 price range. This relationship indicates a distinct advantage for waterfront property in the Kalamazoo River basin.

In the last few years, there have been three new residential developments on Lake Allegan that have been successful. The new plats containing lakefront lots sell out fairly quickly. Wildwood Shores is one of the recent plats and sold out of lakefront lots in approximately two years. Home prices are also fairly strong along the lake. One realtor noted that there are some \$300,000 to \$400,000 homes being built along Lake Allegan with typical lakefront improved homes being in the \$200,000+ price range. According to the Greater Kalamazoo Association of Realtors, out of 4,125 residential sales scattered throughout the area, the average sale price was \$127,282 per residential unit and the median sale price was \$111,750 per residential unit.

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In addition to the interviews summarized above, the consultant gathered MLS data on Lake Allegan lot sales and other lakes in the area not affected by the Kalamazoo River pollution. The consultant selected lake lot sales because data was readily available through MLS and because there are less characteristics that could influence value other than contamination. Following is a summary of the lot sale data.

Lake Lot Sale Summary

MLS #	Body of Water	Date	DOM	Lot Area	WtrFrnt	Sale Price	Price/SF	Price/FF
9915253	Lake Allegan	09/99	81	27,286'	113'	\$51,000	\$1.87	\$451
9905465	Lake Allegan	04/99	1	42,844'	86'	52,500	1.23	610
9812442	Lake Allegan	01/99	224	47,633'	134'	62,900	1.32	469
2005943	Lake Allegan	07/00	93	24,000'	120'	58,500	2.44	488
2029266	Lake Allegan	12/00	6	18,383'	111'	55,000	2.99	496
9907279	Lake Allegan	04/99	5	52,404'	135'	55,000	1.05	407
9920289	Lake Allegan	07/99	1	9,000'	60'	33,500	3.72	558
2023093	Lake Allegan	10/00	12	12,000'	60'	33,500	2.79	558
9831920	Lake Allegan	01/99	18	12,000'	60'	33,500	2.79	558
2103610	Lake Allegan	06/01	42	12,845'	72'	38,000	2.96	528
9907328	Lake Allegan	09/99	172	26,358'	74'	42,500	1.61	574
9913116	Lake Allegan	07/99	15	13,718'	100'	45,000	3.28	450
2015035	Lake Allegan	06/00	12	26,992'	112'	48,000	1.78	429
9917059	Lake Allegan	08/99	1	40,976'	126'	49,900	1.22	396
14 Sale Average.....			49	26,174'	97'	\$47,057	\$2.22	\$498
2019268	Upper Scott	06/01	337	53,235'	105'	\$22,000	\$0.41	\$210
2107682	Upper Scott	05/01	44	120,560'	110'	29,900	0.25	272
2111756	Minkler Lake	06/01	30	87,120'	225'	69,900	0.80	311
2012757	Scott Lake	06/01	89	5,000'	50'	30,000	6.00	600
2109130	Miner Lake	05/01	25	87,120'	300'	200,000	2.30	667
9914145	Hutchins Lake	12/00	495	313,632'	189'	140,000	0.45	741
9905968	Wetmore Lake	02/00	324	27,600'	120'	43,000	1.56	358
7 Sale Average.....			192	99,181'	157'	\$76,400	\$1.68	\$451

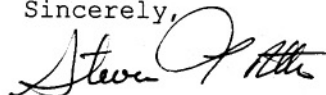
Among the data above, there appears to be the most correlation between sale price and water feet of water frontage. The sale price per waterfront foot provides a fairly consistent range in indicated values. The average sale price per waterfront foot for Lake Allegan lots was \$498. The average sale price per waterfront foot for other area lakes was \$451. Therefore, the data suggests that there are no adverse conditions affecting the value of the Lake Allegan properties.

CONCLUSIONS

Based on the data gathered during this limited scope market study, it appears unlikely that an adverse impact on property values along the Kalamazoo River basin could be measured. Therefore, a more in-depth market study is not warranted.

Thank you for the opportunity to be of service to you. If you have any additional questions on the matter, please call me.

Sincerely,



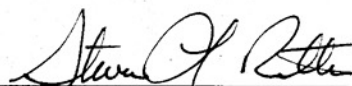
Steven L. Ritter



CERTIFICATION

I certify that, to the best of my knowledge and belief:

- the statements of fact contained in this report are true and correct.
- the reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, impartial, and unbiased professional analyses, opinions, conclusions, and recommendations.
- I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest with respect to the parties involved.
- I have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment.
- my engagement in this assignment was not contingent upon developing or reporting predetermined results.
- my compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- my analysis, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.
- I have made a personal inspection of the property that is the subject of this report.
- no one provided significant real property appraisal or appraisal consulting assistance to the person signing this certification.
- the reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the Appraisal Institute. As of the effective date of this report, I have completed the requirements of the continuing education program of the Appraisal Institute.
- the use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.



Consultant

September 21, 2001

Date of Value Estimate